

**REMARKS**

The claims have been amended in accordance with the Examiner's rejections and suggestions. In particular, claim 2 has been amended to delete SEQ ID NO:3 and claim 4 has been amended to recite "An expression vector". Applicants believe that these amendments place the application in better condition for allowance or reduce the issues that may be appealed, and therefore request entry of the amendments.

**Withdrawn Rejections**

The Examiner stated that the following rejections have been withdrawn in view of applicants arguments and amendments;

The rejection of claim 5 under 35 U.S.C. § 101;

The rejection of claim 10 under 35 U.S.C. § 112, first paragraph (enablement);

The rejection of claims 1 and 3-12 under 35 U.S.C. § 112, first paragraph (new matter);

The rejection of claim 2 under 35 U.S.C. § 112, first paragraph (written description);

The rejection of claims 1 and 3-12 under 35 U.S.C. § 112, second paragraph; and

The objection of claim 1 for minor informalities.

**Objection to the Amendment to the Specification**

The Examiner has maintained the objection to the specification filed on 4/2/2003 under 35 U.S.C. 132 for the reasons of record as introducing new matter into the disclosure. The Examiner reiterated that there is no support in the original disclosure for the amended ankyrin domains and requires applicant to cancel the new matter in reply to this Office Action.

**Applicants Response**

Applicants reiterate that the support for the amended numbering of the ankyrin domains is found in the description (with accompanying references) of ankyrin domain sequence motifs as they are well known in the art at page 2, lines 16-30 of the specification, and the obvious fact that while the correct amino acid residues in SEQ ID NO:1 encompassing these domains are indicated in the paragraph beginning at line 30 of page 10, their numbering is incorrect as indicated by Figures 2A-2D and the Sequence Listing for SEQ ID NO:1. Therefore, that their correction in the specification merely conforms one part of the specification with another and does not constitute new matter. Withdrawal of the objection is therefore requested.

35 U.S.C. § 112, First Paragraph, Rejection of Claims 1-12 (Enablement)

The Examiner has maintained the rejection of claims 1-12 under 35 U.S.C. § 112, first paragraph, for the reasons of record set forth in Paper 20. In particular, the Examiner stated that the claimed variants and SEQ ID NO:3 (not a fragment of SEQ ID NO:2) may not be used as a probe for the diagnosis of disease conditions associated with expression of Ankrd2V because determining the specificity of hybridization is empirical in nature and the effect of mismatches is unpredictable. Secondly, the specification fails to provide sufficient information on how to produce naturally occurring variants of SEQ ID NO:1 having at least 90% identity to SEQ ID NO:1.

In addition, the Examiner stated, claim 6 remains rejected because its recitation of “A vector”, which as suggested in the previous Office Action to be replaced by “An expression vector” to overcome this part of the rejection.

Applicants Response

Claim 2 has been amended to delete SEQ ID NO:3, and claim 6 has been amended to recite “An expression vector”. With respect to claimed variants of SEQ ID NO:2 or polynucleotides encoding variants of SEQ ID NO:1, applicants reiterate that these sequences are fully enabled for identifying naturally occurring molecules encoding Ankrd2V, allelic variants, or related molecules (p. 13, lines 22-26); in arrays to monitor large number of genes simultaneously and to identify genetic variants and mutations (p. 14, lines 16-24); and for chromosomal mapping (p. 14, lines 25-29).

With respect to enablement for the “production” of polynucleotides encoding naturally occurring variants of SEQ ID NO:1, this is fully enabled throughout the specification and by conventional knowledge in the art. It is wholly dependent on the ability of the skilled artisan to identify such variants from the specification and the conventional knowledge of one skilled in the art as argued below regarding the rejection of these claims under 35 U.S.C. § 112, first paragraph, for an alleged lack of written description.

Applicants therefore submit that with these amendments and arguments, claims 1-12 are fully enabled by the specification and request withdrawal of the rejection of these claims under 35 U.S.C. § 112, first paragraph, for lack of enablement.

35 U.S.C. § 112, First Paragraph, Rejection of Claims 1 and 3-12 (Description)

The Examiner has maintained the rejection of claims 1 and 3-12 under 35 U.S.C. § 112, first paragraph, as set forth in Paper 20. The Examiner reviewed applicants remarks in response to this rejection set forth in the response filed August 6, 2003, and reiterated the rejection stating that the specification fails to define the chemical structure of the genus, fails to describe the relation of the functions to structure of the genus, and fails to provide representative species of the genus. Therefore, that applicants were not in possession of the claimed variants at the time when the application was filed.

**Applicants Response**

Applicants maintain that, for the reasons specifically stated at pages 10-15 of the response filed August 6, 2003, the claimed variants, at least as recited in claim 1 of the instant application fulfill the written description requirement of 35 U.S.C. § 112, first paragraph, as described in the Patent and Trademark Office's own "Guidelines for Examination of Patent Applications Under the 35 U.S.C. Sec. 112, para. 1", published January 5, 2001, as well as by various case law on the subject. Withdrawal of the rejection of claims under 35 U.S.C. § 112, first paragraph, for an alleged lack of adequate written description is therefore reiterated.

**35 U.S.C. § 112, Second Paragraph, Rejection of Claim 2**

The Examiner has maintained the rejection of claim 2 under 35 U.S.C. § 112, second paragraph, for the reasons of record set forth in Paper No. 20. The Examiner reiterated that the claim recites SEQ ID NO:3 as a fragment of SEQ ID NO:2, whereas SEQ ID NO:3 is not a fragment of SEQ ID NO:2 for reasons previously given.

**Applicants Response**

Although applicants disagree with the Examiner's assessment for reasons previously given in the response filed August 6, 2003, SEQ ID NO:3 has been canceled from the claim, and withdrawal of the rejection is therefore requested.

**CONCLUSION**

In light of the above amendments and remarks, Applicants submit that the present application is fully in condition for allowance, and request that the Examiner withdraw the outstanding objections/rejections. Early notice to that effect is earnestly solicited.

If the Examiner contemplates other action, or if a telephone conference would expedite allowance of the claims, Applicants invite the Examiner to contact the undersigned at the number listed below.

Applicants believe that no fee is due with this communication. However, if the USPTO determines that a fee is due, the Commissioner is hereby authorized to charge Deposit Account No. **09-0108**.

Respectfully submitted,

INCYTE CORPORATION

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